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**NATIONAL ADVISORY COMMITTEE
FOR AERONAUTICS**

**LIST OF REPORTS
WITH PRICES**



EDITION MAY 1, 1929

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

LIST OF REPORTS WITH PRICES

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¹ 12	Experimental Researches on the Resistance of Air. By L. Marchis. (Second Annual, 1916)	-----
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³ 78	The Limiting Velocity in Falling from a Great Height. By Edwin Bidwell Wilson. (Fifth Annual, 1919)	-----
³ 79	Bomb Trajectories. By Edwin Bidwell Wilson. (Fifth Annual, 1919)	-----
³ 83	Wind Tunnel Studies in Aerodynamic Phenomena at High Speed. By F. W. Caldwell and E. N. Fales. (Sixth Annual, 1920)	-----
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³ 114	Some New Aerodynamical Relations. By Max M. Munk. (Seventh Annual, 1921)	-----
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311	Aerodynamic Theory and Test of Strut Forms—I. By R. H. Smith. (Fifteenth Annual, 1929)-----	. 10

AIRFOILS AND WING SECTIONS

* 18	Aerofoils and Aerofoil Structural Combinations. Combinations. By Lieut. Col. Edgar S. Gorrell and Maj. H. S. Martin. (Third Annual, 1917)-----	-----
* 28	An Introduction to the Study of the Laws of Air Resistance of Aerofoils. By George de Bothezat. (Fourth Annual, 1918)-----	-----
* 75	The Aerodynamic Properties of Thick Aerofoils Suitable for Internal Bracing. By F. H. Norton. (Fifth Annual, 1919)-----	-----
* 77	The Parker Variable Camber Wing. By H. F. Parker. (Fifth Annual, 1919)-----	-----
* 93	Aerodynamic Characteristics of Airfoils. By National Advisory Committee for Aeronautics. (Sixth Annual, 1920)-----	-----

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³ 111	The Variation of Airfoil Lift and Drag Coefficients with Changes in Size and Speed. By W. S. Diehl. (Seventh Annual, 1921)-----	
³ 121	The Minimum Induced Drag of Airfoils. By Max M. Munk. (Seventh Annual, 1921)-----	
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³ 142	General Theory of Thin Wing Sections. By Max M. Munk. (Eighth Annual, 1922)-----	
³ 150	Pressure Distribution over Thick Aerofoils—Model Tests. By F. H. Norton and D. L. Bacon. (Eighth Annual, 1922)-----	
³ 152	The Aerodynamic Properties of Thick Aerofoils—II. By F. H. Norton and D. L. Bacon. (Eighth Annual, 1922)-----	
¹ 169	The Effect of Airfoil Thickness and Plan Form on Lateral Control. By H. I. Hoot. (Ninth Annual, 1923)-----	. 05
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217	Preliminary Wing Model Tests in the Variable Density Wind Tunnel of the National Advisory Committee for Aeronautics. By Max M. Munk. (Eleventh Annual, 1925)-----	. 10
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² 70	Preliminary Report on Free Flight Tests. By Edward P. Warner and F. H. Norton. (Fifth Annual, 1919)-----	-----
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³ 148	The Pressure Distribution Over the Horizontal Tail Surfaces of an Airplane—III. By F. H. Norton and W. G. Brown. (Eighth Annual, 1922)-----	-----
³ 149	Pressure Distribution Over the Rudder and Fin of an Airplane in Flight. By F. H. Norton and W. G. Brown. (Eighth Annual, 1922)-----	-----
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¹ 7	Thermodynamic Efficiency of Present Types of Internal Combustion Engines for Aircraft. By Columbia University. (First Annual, 1915)-----	
	Part 1. Review of the Development of Engines Suitable for Aeronautic Service.	
	Part 2. Aero Engines Analyzed with Reference to Elements of Process or Function.	
¹ 10	Mufflers for Aeronautic Engines. By Prof. H. Diederichs and Prof. G. B. Upton. (Second Annual, 1916)-----	
¹ 11	Carburetor Design—A Preliminary Study of the State of the Art. By Charles Edward Lucke, assisted by Friederich Otto Willhofft. (Second Annual, 1916)-----	

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3 24	Air Flow Through Poppet Valves. By G. W. Lewis and E. M. Nutting. (Fourth Annual, 1918)-----	
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3 45	Effect of Compression Ratio, Pressure, Temperature, and Humidity on Power. (Fourth Annual, 1918)----- Part 1. Variation of Horsepower with Altitude and Compression Ratio. By H. C. Dickinson, W. S. James, and G. V. Anderson. Part 2. Value of Supercharging. By H. C. Dickinson and G. V. Anderson. Part 3. Variation of Horsepower with Temperature. By H. C. Dickinson, W. S. James, and G. V. Anderson. Part 4. Influence of Water Injection on Engine Performance. By V. W. Brinkerhoff.	
3 46	A Study of Airplane Engine Tests. By V. R. Gage. (Fourth Annual, 1918)-----	
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3 49	Metering Characteristics of Carburetors. By P. S. Tice. (Fourth Annual, 1918)-----	

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² 53	Properties and Preparation of Ceramic Insula- tors for Spark Plugs. (Fifth Annual, 1919) ----- Part 1. Methods of Measuring Resistance of Insulators at High Temperatures. By F. B. Silsbee and R. K. Honaman. Part 2. Electrical Resistance of Various In- sulating Materials at High Temperatures. By R. K. Honaman and E. L. Fonseca. Part 3. Preparation and Composition of Ceramic Bodies for Spark-plug Insula- tors. By A. V. Bleininger. Part 4. Cements for Spark-plug Electrodes. By H. F. Staley.	-----
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² 57	The Subsidiary Gap as a Means for Improving Ignition. By W. S. Gorton. (Fifth Annual, 1919)	-----

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87	Effects of Nature of Cooling Surface on Radiator Performance. By S. R. Parsons and R. V. Kleinschmidt. (Sixth Annual, 1920)-----	. 05
88	Pressure Drop in Radiator Air Tubes. By S. R. Parsons. (Sixth Annual, 1920)-----	. 05
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³ 123	Simplified Theory of the Magneto. By F. B. Silsbee. (Seventh Annual, 1921)-----	
³ 134	Performance of Maybach 300-horsepower Airplane Engine. By S. W. Sparrow. (Eighth Annual, 1922)-----	
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³ 158	Mathematical Equations for Head Conduction in the Fins of Air-cooled Engines. By D. R. Harper and W. G. Brown. (Eighth Annual, 1922)-----	
³ 159	Jet Propulsion for Airplanes. By Edgar Buckingham. (Ninth Annual, 1923)-----	
³ 171	Engine Performance and the Determination of Absolute Ceiling. By Walter S. Diehl. (Ninth Annual, 1923)-----	
179	The Effect of Electrode Temperature on the Sparking Voltage of Short Spark Gaps. By F. B. Silsbee. (Ninth Annual, 1923)-----	. 05
² 187	Flame Speed and Spark Intensity. By D. W. Randolph and F. B. Silsbee. (Tenth Annual, 1924)-----	
² 189	Relation of Fuel-air Ratio to Engine Performance. By Stanwood W. Sparrow. (Tenth Annual, 1924)-----	
190	Correcting Horsepower Measurements to a Standard Temperature. By Stanwood W. Sparrow. (Tenth Annual, 1924)-----	. 05

² Out of print as a separate report. The annual volume containing this report is still available.

³ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

ENGINES AND ACCESSORIES—Continued

No.	Title	Price
202	The Sparking Voltage of Spark Plugs. By F. B. Silsbee. (Tenth Annual, 1924)-----	\$0. 05
205	The Effect of Changes in Compression Ratio upon Engine Performance. By Stanwood W. Sparrow. (Tenth Annual, 1924)-----	. 10
222	Spray Penetration with a Simple Fuel Injection Nozzle. By Harold E. Miller and Edward G. Beardsley. (Eleventh Annual, 1925)-----	. 05
224	An Investigation of the Coefficient of Discharge of Liquids Through Small Round Orifices. By W. F. Joachim. (Eleventh Annual, 1925)---	. 05
230	Description and Laboratory Tests of a Roots Type Aircraft Engine Supercharger. By Marsden Ware. (Eleventh Annual, 1925)-----	. 10
239	Power Output and Air Requirements of a Two-stroke Cycle Engine for Aeronautical Use. By C. R. Paton and Carlton Kemper. (Twelfth Annual, 1926)-----	. 10
241	Electrical Characteristics of Spark Generators for Automotive Ignition. By R. B. Brode, D. W. Randolph, and F. B. Silsbee. (Twelfth Annual, 1926)-----	. 15
243	A Preliminary Study of Fuel Injection and Compression Ignition as Applied to an Aircraft Engine Cylinder. By Arthur W. Gardiner. (Twelfth Annual, 1926)-----	. 10
250	Description of the N. A. C. A. Universal Test Engine and Some Test Results. By Marsden Ware. (Twelfth Annual, 1926)-----	. 10
252	The Direct Measurement of Engine Power on an Airplane in Flight with a Hub Type Dynamometer. By W. D. Gove and M. W. Green. (Twelfth Annual, 1927)-----	. 10
258	Some Factors Affecting the Reproducibility of Penetration and the Cut-off of Oil Sprays for Fuel Injection Engines. By E. G. Beardsley. (Thirteenth Annual, 1927)-----	. 05
261	Resistance and Cooling Power of Various Radiators. By R. H. Smith. (Thirteenth Annual, 1927)-----	. 10
262	Friction of Aviation Engines. By S. W. Sparrow and M. A. Thorne. (Thirteenth Annual, 1927)-----	. 10

ENGINES AND ACCESSORIES—Continued

No.	Title	Price
263	Preliminary Flight Tests of the N. A. C. A. Roots Type Aircraft Engine Supercharger. By Arthur W. Gardiner and Elliott G. Reid. (Thirteenth Annual, 1927)-----	\$0. 10
268	Factors in the Design of Centrifugal Type Injection Valves for Oil Engines. By W. F. Joachim and E. G. Beardsley. (Thirteenth Annual, 1927)-----	. 10
272	The Relative Performance Obtained with Several Methods of Control of an Overcompressed Engine Using Gasoline. By Arthur W. Gardiner and William E. Whedon. (Thirteenth Annual, 1927)-----	. 10
274	The N. A. C. A. Photographic Apparatus for Studying Fuel Sprays from Oil Engine Injection Valves and Test Results from Several Researches. By Edward G. Beardsley. (Thirteenth Annual, 1927)-----	. 10
276	Combustion Time in the Engine Cylinder and Its Effect on Engine Performance. By Charles F. Marvin, jr. (Thirteenth Annual, 1927)-----	. 10
277	The Comparative Performance of an Aviation Engine at Normal and High Inlet Air Temperatures. By Arthur W. Gardiner and Oscar W. Schey. (Thirteenth Annual, 1927)-----	. 10
280	The Gaseous Explosive Reaction—The Effect of Inert Gases. By F. W. Stevens. (Thirteenth Annual, 1927)-----	. 10
281	The Effects of Fuel and Cylinder Gas Densities on the Characteristics of Fuel Sprays for Oil Engines. By W. F. Joachim and Edward G. Beardsley. (Thirteenth Annual, 1927)-----	. 10
282	The Performance of Several Combustion Chambers Designed for Aircraft Oil Engines. By William F. Joachim and Carlton Kemper. (Thirteenth Annual, 1927)-----	. 10
283	A Preliminary Investigation of Supercharging an Air-cooled Engine in Flight. By Marsden Ware and Oscar W. Schey. (Fourteenth Annual, 1928)-----	. 10

ENGINES AND ACCESSORIES—Continued

No.	Title	Price
284	The Comparative Performance of Roots Type Aircraft Engine Superchargers as Affected by Change in Impeller Speed and Displacement. By Marsden Ware and Ernest E. Wilson. (Fourteenth Annual, 1928)-----	\$0. 10
294	The Measurement of Maximum Cylinder Pressures. By Chester W. Hicks. (Fourteenth Annual, 1928)-----	. 15
295	The Variation in Engine Power with Altitude Determined from Measurements with a Hub Dynamometer. By W. D. Gove. (Fourteenth Annual, 1928)-----	. 10
303	An Investigation of the Use of Discharge Valves and an Intake Control for Improving the Performance of N. A. C. A. Roots Type Supercharger. By Oscar W. Schey and Ernest E. Wilson. (Fourteenth Annual, 1928)-----	. 10
313	Drag and Cooling with Various Forms of Cowling for a "Whirlwind" Radial Air-Cooled Engine—I. By Fred E. Weick. (Fifteenth Annual, 1929)-----	. 15
314	Drag and Cooling with Various Forms of Cowling for a "Whirlwind" Radial Air-Cooled Engine—II. By Fred E. Weick. (Fifteenth Annual, 1929)-----	. 20

FUELS

42	A New Process for the Production of Aircraft-engine Fuels. By Auguste Jean Paris, jr., and W. Francklyn Paris. (Fourth Annual, 1918)-----	\$0. 05
47	Power Characteristics of Fuels for Aircraft Engines. (Fourth Annual, 1918)----- Part 1. Power Characteristics of Aviation Gasoline. By E. W. Roberts. Part 2. Power Characteristics of Sumatra and Borneo Gasolines. By E. W. Roberts. Part 3. Power Characteristics of 20 per cent Benzol Mixtures. By E. W. Roberts.	. 10

FUELS—Continued

No.	Title	Price
89	Comparison of Alcogas Aviation Fuel with Export Aviation Gasoline. By V. R. Gage, S. W. Sparrow, and D. R. Harper. (Sixth Annual, 1920)-----	\$0. 05
90	Comparison of Hector Fuel with Export Aviation Gasoline. By H. C. Dickinson, V. R. Gage and S. W. Sparrow. (Sixth Annual, 1920)-----	. 05
232	Fuels for High-compression Engines. By Stan-wood W. Sparrow. (Eleventh Annual, 1925)---	. 10
305	The Gaseous Explosive Reaction—A Study of the Kinetics of Composite Fuels. By F. W. Stevens. (Fourteenth Annual, 1928)-----	. 15

GASES

40	The Ferrosilicon Process for the Generation of Hydrogen. By E. R. Weaver, W. M. Berry, V. L. Bohson, and B. D. Gordon. (Fourth Annual, 1918)-----	\$0. 15
41	Testing of Balloon Gas. By Junius David Edwards. (Fourth Annual, 1918)-----	. 05

HELICOPTERS

³ 80	Stability of the Parachute and Helicopter. By H. Bateman. (Fifth Annual, 1919)-----	-----
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INSTRUMENTS

¹ 2	Investigation of Pitot Tubes. (First Annual, 1915)----- Part 1. The Pitot Tube and Other Anemometers for Airplanes. By W. H. Herschel. Part 2. The Theory of the Pitot and Venturi Tubes. By E. Buckingham.	-----
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¹ Out of print. Annual volume available for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics, Washington, D. C., and in the libraries of large cities.

³ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

INSTRUMENTS—Continued

No.	Title	Price
1 8	General Specifications Covering Requirements of Aeronautic Instruments. By the National Advisory Committee for Aeronautics. (Second Annual, 1916)-----	-----
31	Development of Air Speed Nozzles. By A. F. Zahm. (Fourth Annual, 1918)-----	\$0. 10
32	The Airplane Tensiometer. By L. J. Larson. (Fourth Annual, 1918)-----	. 05
50	Calculation of Low Pressure Indicator Diagrams. By E. C. Kemble. Fourth Annual, 1918)-----	. 05
81	Comparison of U. S. and British Standard Pitot-static Tubes. By A. F. Zahm and R. H. Smith. (Fifth Annual, 1919)-----	. 05
94	The Efficiency of Small Bearings in Instruments of the Type Used in Aircraft. By F. H. Norton. (Sixth Annual, 1920)-----	. 05
99	Acceleration in Flight. By F. H. Norton and E. T. Allen. (Sixth Annual, 1920)-----	. 10
100	Accelerometer Design. By F. H. Norton and Edward P. Warner. (Sixth Annual, 1920)-----	. 05
107	A High-speed Engine Pressure Indicator of the Balanced Diaphragm Type. By H. C. Dickinson and F. B. Newell. (Sixth Annual, 1920)-----	. 05
110	The Altitude Effect on Air Speed Indicators. By M. D. Hersey, F. L. Hunt, and H. N. Eaton. (Sixth Annual, 1920)-----	. 10
125	Aeronautic Instruments: Section I—General Classification of Instruments and Problems Including Bibliography. By Bureau of Standards. (Seventh Annual, 1921)-----	. 05
126	Aeronautic Instruments: Section II—Altitude Instruments. By Bureau of Standards. (Seventh Annual, 1921)----- Part 1. Altimeters and Barographs. Part 2. Precision Altimeter Design. Part 3. Staticopes and Rate-of-climb Indicators. Part 4. Aerographs and Strut Thermometers.	. 15

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INSTRUMENTS—Continued

No.	Title	Price
127	Aeronautic Instruments: Section III—Aircraft Speed Instruments. By Bureau of Standards. (Seventh Annual, 1921)----- Part 1. Air Speed Indicators. Part 2. Testing of Air Speed Meters. Part 3. Principles of Ground-speed Instruments.	\$0. 10
128	Aeronautic Instruments: Section IV—Direction Instruments. By Bureau of Standards. (Seventh Annual, 1921)----- Part 1. Inclinometers and Banking Indicators. Part 2. The Testing and Use of Magnetic Compasses for Airplanes. Part 3. Aircraft Compasses—Description and Classification. Part 4. Turn Indicators.	. 15
129	Aeronautic Instruments: Section V—Power-plant Instruments. By Bureau of Standards. (Seventh Annual, 1921)----- Part 1. Airplane Tachometers. Part 2. Testing of Airplane Tachometers. Part 3. Thermometers for Aircraft Engines. Part 4. Air-pressure and Oil-pressure Gages. Part 5. Gasoline-depth Gages and Flow Meters for Aircraft.	. 15
130	Aeronautic Instruments: Section VI—Oxygen Instruments. By Bureau of Standards. (Seventh Annual, 1921)-----	. 10
131	Aeronautic Instruments: Section VII—Aerial Navigation Instruments. By Bureau of Standards. (Seventh Annual, 1921)-----	. 10
132	Aeronautic Instruments: Section VIII—Recent Developments and Outstanding Problems. By Bureau of Standards. (Seventh Annual, 1921)-----	. 05
156	The Altitude Effect of Air Speed Indicators—II. By H. N. Eaton and W. A. McNair. (Eighth Annual, 1922)-----	. 10
160	An Airship Slide Rule. By E. R. Weaver and S. F. Pickering. (Ninth Annual, 1923)-----	. 05
165	Diaphragms for Aeronautic Instruments. By M. D. Hersey. (Ninth Annual, 1923)-----	. 10

INSTRUMENTS—Continued

No.	Title	Price
166	The Aerodynamic Plane Table. By A. F. Zahm. (Ninth Annual, 1923)-----	\$0. 05
176	A Constant-pressure Bomb. By F. W. Stevens. (Ninth Annual, 1923)-----	. 05
198	Astronomical Methods in Aerial Navigation. By K. Hilding Beij. (Tenth Annual, 1924)-----	-----
199	Interference Tests on an N. A. C. A. Pitot Tube. By Elliott G. Reid. (Tenth Annual, 1924)---	. 05
206	Nonmetallic Diaphragms for Instruments. By H. N. Eaton and C. T. Buckingham. (Tenth Annual, 1924)-----	. 10
264	Differential Pressures on a Pitot-Venturi and a Pitot-static Nozzle Over 360° Pitch and Yaw. By R. M. Bear. (Thirteenth Annual, 1927)---	. 05
270	The Measurement of Pressure Through Tubes in Pressure Distribution Tests. By Paul E. Hemke. (Thirteenth Annual, 1927)-----	. 10
299	Investigation of Damping Liquids for Aircraft Instruments. By G. H. Keulegan. (Fourteenth Annual, 1928)-----	. 10
310	Pressure Element of Constant Logarithmic Stiffness for Temperature Compensated Altimeter. By W. G. Brombacher and F. Cordero. (Fifteenth Annual, 1929)-----	. 10

MATERIALS

¹ 5	Relative Worth of Improvements on Fabrics. By the Goodyear Tire and Rubber Co. (First Annual, 1915)-----	-----
¹ 6	Investigations of Balloon and Airplane Fabrics. (First Annual, 1915)-----	-----
	Part 1. Balloon and Airplane Fabrics. By Willis A. Gibbons and Omar H. Smith.	
	Part 2. Skin Friction of Various Surfaces in Air. By Willis A. Gibbons.	

¹ Out of print. Annual volume available for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics, Washington, D. C., and in the libraries of large cities.

MATERIALS—Continued

No.	Title	Price
4 16	The Stretching of the Fabric and the Deformation of the Envelope in Nonrigid Balloons. (Third Annual, 1917)-----	
	Part 1. The Stretching of the Fabric and the Shape of the Envelope. By Rudolf Haas.	
	Part 2. The Deformation of the Envelope of the Siemens-Schuckert Airships. By Alexander Dietzius.	
4 22	Fabrics for Aeronautic Construction. By Subcommittee on Standardization and Investigation of Materials. (Third Annual, 1917)-----	
	Part 1. Cotton Airplane Fabrics.	
	Part 2. Balloon Fabrics.	
33	Self-luminous Materials. By N. E. Dorsey. (Fourth Annual, 1918)-----	\$0. 05
3 34	Aluminum and its Light Alloys. By Paul D. Merica. (Fourth Annual, 1918)-----	
3 36	The Structure of Airplane Fabrics. By E. Dean Walen. (Fourth Annual, 1918)-----	
3 37	Fabric Fastenings. By E. Dean Walen and R. T. Fisher. (Fourth Annual, 1918)-----	
3 38	Airplane Dopes and Doping. By W. H. Smith. (Fourth Annual, 1918)-----	
39	The Testing of Balloon Fabrics. By Junius David Edwards and Irwin L. Moore. (Fourth Annual, 1918)-----	. 05
	Part 1. Characteristic Exposure Tests of Balloon Fabrics.	
	Part 2. Use of Ultra-violet Light for Testing Balloon Fabrics.	
65	The Kiln Drying of Woods for Airplanes. By Harry D. Tieman. (Fifth Annual, 1919)-----	. 10
3 66	Glues Used in Airplane Parts. By S. W. Allen and T. R. Truax. (Fifth Annual, 1919)-----	
3 67	Supplies and Production of Aircraft Woods. By W. N. Sparhawk. (Fifth Annual, 1919)-----	
68	The Effect of Kiln Drying on the Strength of Airplane Woods. By T. R. C. Wilson. (Fifth Annual, 1919)-----	. 15

¹ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

² ⁴ Not issued as a separate report. The annual volume containing this report is still available.

MATERIALS—Continued

No.	Title	Price
³ 84	Data on the Design of Plywood for Aircraft. By Armin Elmendorf. (Sixth Annual, 1920)-----	
³ 85	Moisture Resistant Finishes for Airplane Woods. By M. E. Dunlap. (Sixth Annual, 1920)-----	
³ 145	Internal Stresses in Laminated Construction. By A. L. Heim, A. C. Knauss, and Louis Seutter. (Eighth Annual, 1922)-----	
248	The Corrosion of Magnesium and of the Magnesium Aluminum Alloys Containing Manganese. By J. A. Boyer. (Twelfth Annual, 1926)-----	\$0. 20

METEOROLOGY

¹ 4	Preliminary Report on the Problem of the Atmosphere in Relation to Aeronautics. By Prof. Charles F. Marvin. (First Annual, 1915)-----	
13	Meteorology and Aeronautics. By Wm. R. Blair. (Third Annual, 1917)-----	\$0. 10
	Part 1. Physical Properties and Dynamics of the Atmosphere.	
	Part 2. Topographic and Climatic Factors in Relation to Aeronautics.	
	Part 3. Current Meteorology and Its Use.	
147	Standard Atmosphere. By Willis Ray Gregg. (Eighth Annual, 1922)-----	. 05
² 216	The Reduction of Airplane Flight-test Data to Standard Atmosphere Conditions. By Walter S. Diehl and E. P. Lesley. (Eleventh Annual, 1925)-----	
218	Standard Atmosphere—Tables and Data. By Walter S. Diehl. (Eleventh Annual, 1925)---	. 10
245	Meteorological Conditions along Airways. By W. R. Gregg. (Twelfth Annual, 1926)-----	. 10
246	Tables for Calibrating Altimeters and Computing Altitudes Based on the Standard Atmosphere. By W. G. Brombacher. (Twelfth Annual, 1926)-----	. 10

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MISCELLANEOUS

No.	Title	Price
308	Aircraft Accidents—Methods of Analysis. By the Special Committee on the Nomenclature, Subdivision, and Classification of Aircraft Accidents, N. A. C. A. (Fourteenth Annual, 1928)-----	\$0. 10

NOMENCLATURE

² 9	Nomenclature for Aeronautics. By the National Advisory Committee for Aeronautics. (Second Annual, 1916)-----	
² 15	Nomenclature for Aeronautics. By the National Advisory Committee for Aeronautics. (Third Annual, 1917)-----	
³ 25	Nomenclature for Aeronautics. By the National Advisory Committee for Aeronautics. (Fourth Annual, 1918)-----	
91	Nomenclature for Aeronautics. By the National Advisory Committee for Aeronautics. (Sixth Annual, 1920)-----	\$0. 15
³ 157	Nomenclature for Aeronautics. By the National Advisory Committee for Aeronautics. (Eighth Annual, 1922)-----	
240	Nomenclature for Aeronautics. By the National Advisory Committee for Aeronautics. (Twelfth Annual, 1926)-----	. 20
NOTE.—Reports 9, 15, 25, 91, 157 are obsolete.		

PARACHUTES

³ 80	Stability of the Parachute and Helicopter. By H. Bateman. (Fifth Annual, 1919)-----	
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¹ Out of print as a separate report. The annual volume containing this report is still available.

³ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

PROPELLERS

No.	Title	Price
² 14	Experimental Research on Air Propellers. By Wm. F. Durand. (Third Annual, 1917) ----- Part 1. The Aerodynamic Laboratory at Leland Stanford Junior University and the Equipment Installed with Special Reference to Tests on Air Propellers. Part 2. Tests on 48 Model Forms of Air Propellers, with Analysis and Discussion of Results and Presentation of the Same in Graphic Form. Part 3. A Brief Discussion of the Law of Similitude as Affecting the Relation Between the Results Derived from Model Forms and Those to be Anticipated from Full-sized Forms.	-----
² 19	Periodic Stresses in Gyroscopic Bodies—with Applications to Air Screws. By A. F. Zahm. (Third Annual, 1917) ----- Part 1. The Gyroscopic Particle. Part 2. The Gyroscopic Three-Dimensional Body.	-----
29	The General Theory of Blade Screws. By George de Bothezat. (Fourth Annual, 1918) -----	\$0. 20
³ 30	Experimental Research on Air Propellers—II. By Wm. F. Durand and E. P. Lesley. (Fourth Annual, 1918) -----	-----
64	Experimental Research on Air Propellers—III. By Wm. F. Durand and E. P. Lesley. (Fifth Annual, 1919) -----	. 10
71	Slip-stream Corrections in Performance Computation. By Edward P. Warner. (Fifth Annual, 1919) -----	. 05
² 109	Experimental Research on Air Propellers—IV. By Wm. F. Durand and E. P. Lesley. (Sixth Annual, 1920) -----	-----
113	Tests on Air Propellers in Yaw. By Wm. F. Durand and E. P. Lesley. (Seventh Annual, 1921) -----	. 10

² Out of print as a separate report. The annual volume containing this report is still available.

³ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

PROPELLERS—Continued

No.	Title	Price
141	Experimental Research on Air Propellers—V. By Wm. F. Durand and E. P. Lesley. (Eighth Annual, 1922)-----	\$0. 15
³ 168	The General Efficiency Curve for Air Propellers. By Walter S. Diehl. (Ninth Annual, 1923)-----	
³ 175	Analysis of W. F. Durand's and E. P. Lesley's Propeller Tests. By Max M. Munk. (Ninth Annual, 1923)-----	
³ 177	The Effect of Slip-stream Obstructions on Air Propellers. By E. P. Lesley and B. M. Woods. (Ninth Annual, 1923)-----	
³ 178	Relative Efficiency of Direct and Geared Drive Propellers. By Walter S. Diehl. (Ninth Annual, 1923)-----	
183	The Analysis of Free-flight Propeller Tests and Its Application to Design. By Max M. Munk. (Ninth Annual, 1923)-----	. 05
² 186	Application of Propeller-test Data to Design and Performance Calculations. By Walter S. Diehl. (Tenth Annual, 1924)-----	
196	Comparison of Model Propeller Tests with the Airfoil Theory. By W. F. Durand and E. P. Lesley. (Tenth Annual, 1924)-----	. 10
220	Comparison of Tests on Airplane Propeller in Flight with Wind-tunnel Model Tests on Similar Forms. By W. F. Durand and E. P. Lesley. (Eleventh Annual, 1925)-----	. 15
³ 235	Interaction between Air Propellers and Airplane Structures. By W. F. Durand. (Twelfth Annual, 1926)-----	
237	Tests on Thirteen Navy Type Model Propellers. By W. F. Durand. (Twelfth Annual, 1926)---	. 10
259	Characteristics of Propeller Sections Tested in the Variable Density Wind Tunnel. By Eastman N. Jacobs. (Thirteenth Annual, 1927)---	. 10
292	Characteristics of Five Propellers in Flight. By J. W. Crowley, jr., and R. E. Mixson. (Fourteenth Annual, 1928)-----	. 15

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³ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

PROPELLERS—Continued

No.	Title	Price
301	Full Scale Tests of Wood Propellers on a VE-7 Airplane in the Propeller Research Tunnel. By Fred E. Weick. (Fourteenth Annual, 1928)-----	\$0. 15
302	Full Scale Tests on a Thin Metal Propeller at Various Tip Speeds. By Fred E. Weick. (Fourteenth Annual, 1928)-----	. 10
306	Full Scale Wind Tunnel Tests of a Series of Metal Propellers on a VE-7 Airplane. By Fred E. Weick. (Fourteenth Annual, 1928)--	. 10

SEAPLANES

209	Characteristics of a Single-float Seaplane during Take-off. By J. W. Crowley, jr., and K. M. Ronan. (Tenth Annual, 1924)-----	\$0. 05
226	Characteristics of a Boat-type Seaplane during Take-off. By J. W. Crowley, jr., and K. M. Ronan. (Eleventh Annual, 1925)-----	. 05
242	Characteristics of a Twin-float Seaplane during Take-off. By John W. Crowley, jr., and K. M. Ronan. (Twelfth Annual, 1926)-----	. 10
290	Water-Pressure Distribution on a Seaplane Float. (Fourteenth Annual, 1928)-----	. 10

STABILITY AND CONTROL

¹ 1	Report on Behavior of Airplanes in Gusts. (First Annual, 1915)----- Part 1. Experimental Analysis of Inherent Longitudinal Stability for a Typical Bi-plane. By J. C. Hunsaker. Part 2. Theory of an Airplane Encountering Gusts. By E. B. Wilson.	
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STABILITY AND CONTROL—Continued

No.	Title	Price
4 17	An Investigation of the Elements which Contribute to Statical and Dynamical Stability, and of the Effects of Variation in those Elements. By Alexander Klemin, Edward P. Warner, and George M. Denking. (Third Annual, 1917)-----	
4 21	Theory of an Airplane Encountering Gusts—II. By E. B. Wilson. (Third Annual, 1917)-----	
3 26	The Variation of Yawing Moment Due to Rolling. By E. B. Wilson. (Fourth Annual, 1918)-----	
3 27	Theory of an Airplane Encountering Gusts—III. By E. B. Wilson. (Fourth Annual, 1918)-----	
3 95	Diagrams of Airplane Stability. By H. Bateman. (Sixth Annual, 1920)-----	
3 96	Statical Longitudinal Stability of Airplanes. By Edward P. Warner. (Sixth Annual, 1920)-----	
112	Control in Circling Flight. By F. H. Norton and E. T. Allen. (Seventh Annual, 1921)---	\$0. 10
3 120	Practical Stability and Controllability of Airplanes. By F. H. Norton. (Seventh Annual, 1921)-----	
3 153	Controllability and Maneuverability of Airplanes. By F. H. Norton and W. G. Brown. (Eighth Annual, 1922)-----	
172	Dynamic Stability as Affected by the Longitudinal Moment of Inertia. By Edwin B. Wilson. (Ninth Annual, 1923)-----	. 05
293	Two Practical Methods for the Calculation of the Horizontal Tail Area Necessary for a Statically Stable Airplane. By Walter S. Diehl. (Fourteenth Annual, 1928)-----	. 10
298	Effect of Variation of Chord and Span of Ailerons on Rolling and Yawing Moments in Level Flight. By R. H. Heald and D. L. Strother. (Fourteenth Annual, 1928)-----	. 10

³ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

⁴ Not issued as a separate report. The annual volume containing this report is still available.

STRENGTH OF CONSTRUCTION

No.	Title	Price
3	Report on the Investigations of Aviation Wires and Cables, their Fastenings and Terminal Connections. By John A. Roebling's Sons Co. (First Annual, 1915)-----	
3 35	The Strength of One-piece, Solid, Built-up, and Laminated Wood Airplane Wing Beams. By John H. Nelson. (Fourth Annual, 1918)-----	
3 76	Analysis of Fuselage Stresses. By Edward P. Warner and Roy G. Miller. (Fifth Annual, 1919)-----	
3 82	Airplane Stress Analysis. By A. F. Zahm. (Fifth Annual, 1919)-----	
3 92	Analysis of Wing Truss Stresses. By Edward P. Warner and Roy G. Miller. (Sixth Annual, 1920)-----	
104	Torsion of Wing Trusses at Diving Speeds. By Roy G. Miller. (Sixth Annual, 1920)-----	\$0. 05
137	Point Drag and Total Drag of Navy Struts No. 1 Modified. By A. F. Zahm, R. H. Smith, and G. C. Hill. (Eighth Annual, 1922)-----	. 05
140	Lift and Drag Effects on Wing Tip-rake. By A. F. Zahm, R. M. Bear, and G. C. Hill. (Eighth Annual, 1922)-----	. 05
3 143	Analysis of Stresses in German Airplanes. By Wilhelm Hoff. (Eighth Annual, 1922)-----	
161	The Distribution of Lift Over Wing Tips and Ailerons. By David L. Bacon. (Ninth Annual, 1923)-----	. 10
3 180	The Influence of the Form of a Wooden Beam on Its Stiffness and Strength—I: Deflection of Beams with Special Reference to Shear Deformations. By J. A. Newlin and G. W. Trayer. (Ninth Annual, 1923)-----	
3 181	The Influence of the Form of a Wooden Beam on Its Stiffness and Strength—II: Form Factors of Beams Subjected to Transverse Loading Only. By J. A. Newlin and G. W. Trayer. (Ninth Annual, 1923)-----	

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STRENGTH OF CONSTRUCTION—Continued

No.	Title	Price
² 188	The Influence of the Form of a Wooden Beam on Its Stiffness and Strength—III: Stresses in Wood Members Subjected to Combined Column and Beam Action. By J. A. Newlin and G. W. Trayer. (Tenth Annual, 1924)-----	-----
214	Wing Spar Stress Charts and Wing Truss Proportions. By Edward P. Warner (Eleventh Annual, 1925)-----	\$0. 10
³ 251	Approximations for Column Effect in Airplane Wing Spars. By Edward P. Warner and Mac Short. (Twelfth Annual, 1927)-----	-----

WIND TUNNELS AND LABORATORIES

44	The Altitude Laboratory for the Testing of Aircraft Engines. By H. C. Dickinson and H. G. Boutell. (Fourth Annual, 1918)-----	\$0. 10
72	Wind-tunnel Balances. By Edward P. Warner and F. H. Norton. (Fifth Annual, 1919)-----	. 10
³ 73	The Design of Wind Tunnels and Wind-tunnel Propellers. By Edward P. Warner and F. H. Norton. (Fifth Annual, 1919)-----	-----
³ 74	Construction of Models for Tests in Wind tunnels. By F. H. Norton. (Fifth Annual, 1919)-----	-----
98	Design of Wind Tunnels and Wind-tunnel Propellers—II. By F. H. Norton and Edward P. Warner. (Sixth Annual, 1920)-----	. 10
146	The Six-component Wind Balance. By A. F. Zahm. (Eighth Annual, 1922)-----	. 05
195	Standardization Tests of N. A. C. A. No. 1 Wind Tunnel. By Elliott G. Reid. (Tenth Annual, 1924)-----	. 10
227	The Variable-density Wind Tunnel of the National Advisory Committee for Aeronautics. By Max M. Munk and Elton W. Miller. (Eleventh Annual, 1925)-----	. 10

² Out of print as a separate report. The annual volume containing this report is still available.

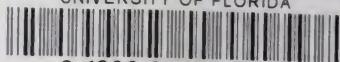
³ Out of print. Available as a separate report for reference or loan in the Office of Aeronautical Intelligence, National Advisory Committee for Aeronautics.

WIND TUNNELS AND LABORATORIES—Continued

No.	Title	Price
231	Investigation of Turbulence in Wind Tunnels by a Study of the Flow About Cylinders. By H. L. Dryden and R. H. Heald. (Eleventh Annual, 1925)-----	\$0. 10
275	The Effect of the Walls in Closed Type Wind Tunnels. By George J. Higgins. (Thirteenth Annual, 1927)-----	
300	The Twenty-Foot Propeller Research Tunnel of the National Advisory Committee for Aeronautics. By Fred E. Weick and Donald H. Wood. (Fourteenth Annual, 1928)-----	. 10
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